

# **REVIEW PLAN**

## **GULF INTRACOASTAL WATERWAY PORT O'CONNOR TO CORPUS CHRISTI, TEXAS SECTION 216 DRAFT FEASIBILITY STUDY**

**U.S. Army Corps of Engineers  
Galveston District**

**MSC Approval Date: July 2009  
Last Revision Date: May 2012**



**US Army Corps  
of Engineers®**

**REVIEW PLAN**

**GIWW Port O’Connor to Corpus Christi, Texas  
Section 216 Feasibility Study**

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## 1. PURPOSE AND REQUIREMENTS

a. **Purpose.** This Review Plan defines the scope and level of peer review for the Port O'Connor to Corpus Christi, Texas, Section 216 Feasibility Report and Environmental Assessment. The Review Plan was approved in July 2009 but did not receive funds to complete the report preparation and review. The project has been funded and the review plan is being resubmitted to include changes in review requirements, references and template.

### b. References

- (1) Engineering Circular (EC) 1165-2-209, Civil Works Review Policy, 31 Jan 2010
- (2) EC 1105-2-412, Assuring Quality of Planning Models, 31 Mar 2011
- (3) Engineering Regulation (ER) 1110-1-12, Quality Management, 30 Sep 2006
- (4) ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 Nov 2007
- (5) Port O'Connor to Corpus Christi Bay (Section 216) Feasibility Project Management Plan

c. **Requirements.** This review plan was developed in accordance with EC 1165-2-209, which establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products by providing a seamless process for review of all Civil Works projects from initial planning through design, construction, and operation, maintenance, repair, replacement and rehabilitation (OMRR&R). The EC outlines four general levels of review: District Quality Control/Quality Assurance (DQC), Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Policy and Legal Compliance Review. In addition to these levels of review, decision documents are subject to cost engineering review and certification (per EC 1165-2-209) and planning model certification/approval (per EC 1105-2-412).

## 2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION

The RMO is responsible for managing the overall peer review effort described in this Review Plan. The RMO for decision documents is typically either a Planning Center of Expertise (PCX) or the Risk Management Center (RMC), depending on the primary purpose of the decision document. The RMO for the peer review effort described in this Review Plan is U.S Army Corps of Engineers (USACE) Planning Center of Expertise for Inland Navigation located in the Great Lakes and Ohio River Division, Huntington District.

The RMO will coordinate with the Cost Engineering Directory of Expertise (DX) to ensure the appropriate expertise is included on the review teams to assess the adequacy of cost estimates, construction schedules and contingencies.

## 3. STUDY INFORMATION

a. **Decision Document.** The Gulf Intracoastal Waterway (GIWW), Port O'Connor to Corpus Christi, Texas, Section 216 will result in a Draft Feasibility Report decision document that will require Congressional authorization. The study is being conducted under Section 216 authority of the 1970 Flood Control Act. This authority provides for review of completed USACE projects that may have changed because of physical or economic reasons. This single purpose (navigation efficiency) Feasibility Study examines two proposed actions: 1) the relocation of an existing authorized mooring

basin currently located in the vicinity of Port O'Connor, Texas; and 2) the realignment of the authorized route of the (GIWW) across Corpus Christi Bay. Study documents will also include an Environmental Assessment (EA).

**b. Study/Project Description.**

**Project Background**

The GIWW is part of the Nation's inland waterway system and stretches from Brownsville, Texas, along the entire Gulf of Mexico to St. Marks, Florida. The Port O'Connor to Corpus Christi (POCC) reach extends from Port O'Connor to the John F. Kennedy Causeway at Corpus Christi Bay, Texas and consists of a 12-foot deep by 125-foot wide channel spanning portions of Matagorda, Calhoun, Refugio, San Patricio, and Nueces counties (Figure 1). The problems identified within the POCC reach and addressed within this study involve long-term dredged material disposal and navigation problems.

The study was undertaken to evaluate operational needs that directly affect the GIWW to allow for a more effective, safe, and efficient waterway. It addresses the feasibility of implementing channel improvements to the existing GIWW system and environmental considerations in the Port O'Connor to Corpus Christi reach.

The draft report addresses two components: 1) the relocation of a mooring basin in the vicinity of Port O'Connor to replace an existing authorized basin that has been removed due to vessel traffic and being located in a highly congested area; and 2) realignment of the authorized GIWW route or construction of an alternative GIWW route to improve navigational efficiency in the vicinity of Corpus Christi Bay. The proposed Corpus Christi Bay reroute would realign the GIWW similar to its alignment prior to 1976 when the current route was constructed. The 1976 reroute was thought to improve efficiency by creating a more direct route, but has instead created a high-shoaling area where the GIWW and Corpus Christi Ship Channel intersect.

An economics analysis of the proposed GIWW realignment / alternate route alternatives performed in March of 2011 failed to identify an alternative with a benefit-cost ratio of at least 1.0 or greater. Therefore the draft Feasibility Report includes the proposed GIWW realignment / reroute for documentation purposes. It is anticipated that only the relocation of the Port O'Connor mooring basin will be tentatively recommended for construction in the draft Feasibility Report. Relocation of the mooring basin will involve unavoidable impacts to approximately two acres of sea grasses. These impacts are proposed to be mitigated by construction of an off-set breakwater at the Texas Parks and Wildlife Mad Island Marsh Wildlife Management Area. The breakwater will protect existing marsh from erosion while creating additional emergent salt marsh.

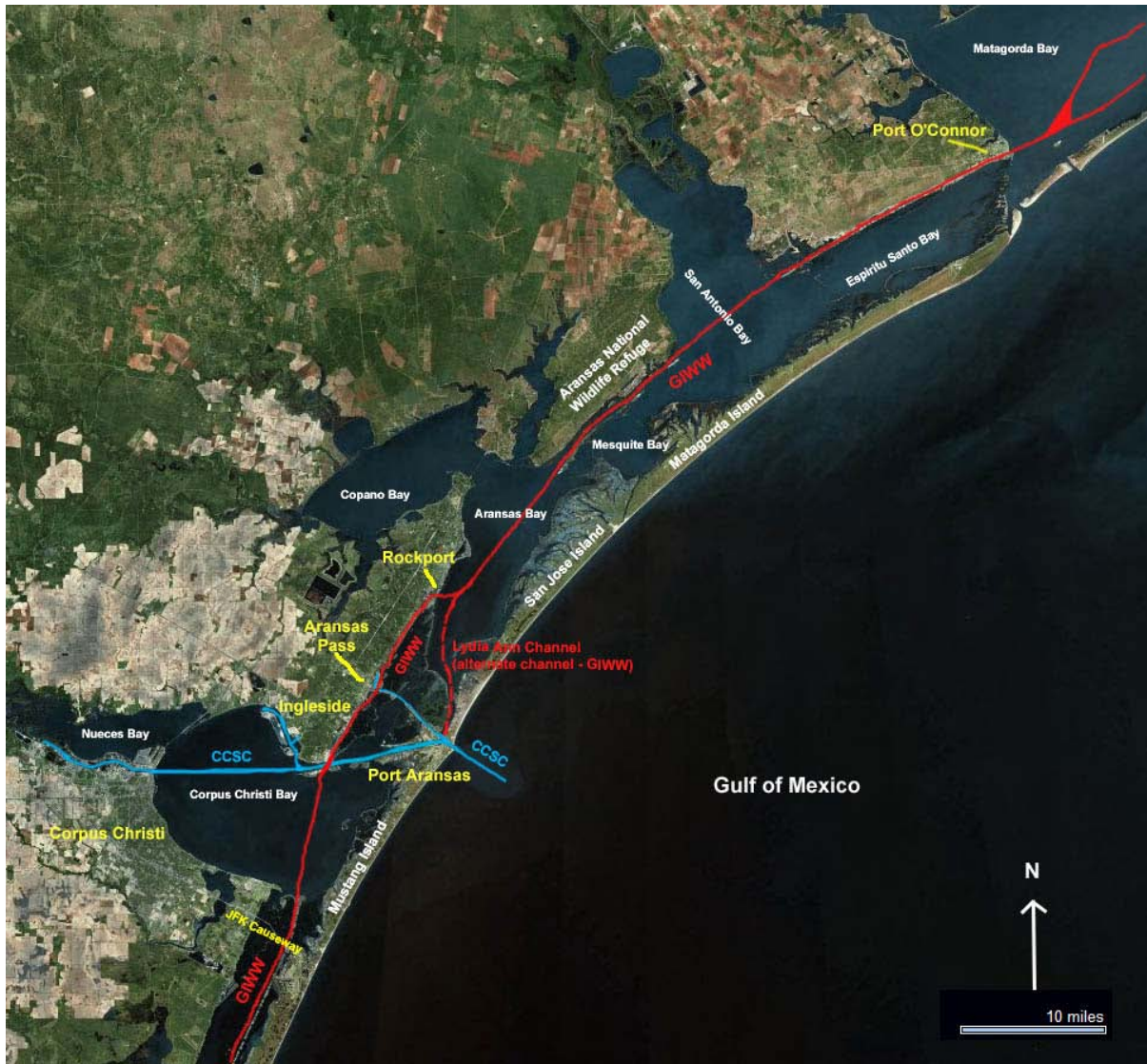


Figure 1 – GIWW Port O’Connor to Corpus Christi and vicinity map

**c. Factors Affecting the Scope and Level of Review.**

It is anticipated that the draft feasibility report will recommend relocation of an existing mooring basin. The currently authorized location of the mooring basin is adjacent to urban areas of Port O’Connor and in an area that has undergone development since its construction. It is anticipated that the draft Feasibility Report will not recommend construction of an alternate route or reroute of the GIWW across Corpus Christi Bay due to the economic analysis prepared March 2012. Current cost estimates for construction of the relocated mooring basin and associated mitigation is approximately \$5 million. Risk associated with the draft Feasibility Report is primarily associated with the calculation of project benefits and costs. Accordingly, the District is also submitting a Request for Exclusion from Independent External Peer Review (IEPR). Once a determination has been made on the Exclusion Request, the review plan will be revised accordingly.

- d. **In-Kind Contributions.** Products and analyses provided by non-Federal sponsors as in-kind services are subject to DQC, ATR, and IEPR. The in-kind products and analyses to be provided by the non-Federal sponsor include: **Not Applicable**

#### 4. DISTRICT QUALITY CONTROL (DQC)

All decision documents (including supporting data, analyses, environmental compliance documents, etc.) shall undergo DQC. DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). The home district shall manage DQC. Documentation of DQC activities is required and should be in accordance with the Quality Manual of the District and the home MSC.

- a. **Documentation of DQC.** DQC is the review of basic science and engineering work products focused on fulfilling the project quality requirements. It is managed by the Galveston District and may be conducted by staff in the home district as long as they are not doing the work involved in the study, including contracted work that is being reviewed. Basic quality control tools include a Quality Management Plan (QMP) providing for seamless review, quality checks and reviews, supervisory reviews, Project Delivery Team (PDT) reviews, etc. Additionally, the PDT is responsible for a complete reading of the report to assure the overall integrity of the report, technical appendices and the recommendations before approval by the District Commander. For the GIWW Port O'Connor to Corpus Christi Section 216 study, non-PDT members and/or supervisory staff will conduct this review for major draft and final products. It is expected that the Major Subordinate Command (MSC)/District QMP addresses the conduct and documentation of this fundamental level of review.

#### 5. AGENCY TECHNICAL REVIEW (ATR)

ATR is mandatory for all decision documents (including supporting data, analyses, environmental compliance documents, etc.). The objective of ATR is to ensure consistency with established criteria, guidance, procedures, and policy. The ATR will assess whether the analyses presented are technically correct and comply with published USACE guidance, and that the document explains the analyses and results in a reasonably clear manner for the public and decision makers. ATR is managed within USACE by the designated RMO and is conducted by a qualified team from outside the home district that is not involved in the day-to-day production of the project/product. ATR teams will be comprised of senior USACE personnel and may be supplemented by outside experts as appropriate. The ATR team lead will be from outside the home MSC.

- a. **Products to Undergo ATR.** The product to undergo ATR will be the draft Feasibility Report and Environmental Assessment. ATR is required for this study and will focus on the following:
  - (1) Review of the planning study process,
  - (2) Review of the economics analysis
  - (3) Review of anticipated environmental impacts and proposed mitigation
  - (4) Completeness of study and support documentation

- b. **Required ATR Team Expertise.**

ATR Team Members/Disciplines	Expertise Required
ATR Lead	The ATR lead should be a senior professional with extensive experience in preparing Civil Works decision documents and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. The ATR lead may also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc).
Planning	The Planning reviewer should be a senior water resources planner with experience in inland navigation.
Economics	The Economics reviewer should be an economist with experience in inland navigation.
Environmental Resources	The Environmental Resources reviewer should be a reviewer with experience in coastal restoration projects and resources.
Cost Engineering/Estimating	The Cost Engineering / Estimating reviewer should be a reviewer with experience in inland navigation.

**c. Documentation of ATR.** DrChecks review software will be used to document all ATR comments, responses and associated resolutions accomplished throughout the review process. Comments should be limited to those that are required to ensure adequacy of the product. The four key parts of a quality review comment will normally include:

- (1) The review concern – identify the product’s information deficiency or incorrect application of policy, guidance, or procedures;
- (2) The basis for the concern – cite the appropriate law, policy, guidance, or procedure that has not be properly followed;
- (3) The significance of the concern – indicate the importance of the concern with regard to its potential impact on the plan selection, recommended plan components, efficiency (cost), effectiveness (function/outputs), implementation responsibilities, safety, Federal interest, or public acceptability; and
- (4) The probable specific action needed to resolve the concern – identify the action(s) that the reporting officers must take to resolve the concern.

In some situations, especially addressing incomplete or unclear information, comments may seek clarification in order to then assess whether further specific concerns may exist.

The ATR documentation in DrChecks will include the text of each ATR concern, the PDT response, a brief summary of the pertinent points in any discussion, including any vertical team coordination (the vertical team includes the district, RMO, MSC, and HQUSACE), and the agreed upon resolution. If an ATR concern cannot be satisfactorily resolved between the ATR team and the PDT, it will be elevated to the vertical team for further resolution in accordance with the policy issue resolution process described in either ER 1110-1-12 or ER 1105-2-100, Appendix H, as appropriate. Unresolved concerns can be closed in DrChecks with a notation that the concern has been elevated to the vertical team for resolution.

At the conclusion of each ATR effort, the ATR team will prepare a Review Report summarizing the review. Review Reports will be considered an integral part of the ATR documentation and shall:

- Identify the document(s) reviewed and the purpose of the review;
- Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer;
- Include the charge to the reviewers;
- Describe the nature of their review and their findings and conclusions;
- Identify and summarize each unresolved issue (if any); and
- Include a verbatim copy of each reviewer's comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views.

ATR may be certified when all ATR concerns are either resolved or referred to the vertical team for resolution and the ATR documentation is complete. The ATR Lead will prepare a Statement of Technical Review certifying that the issues raised by the ATR team have been resolved (or elevated to the vertical team). A Statement of Technical Review should be completed, based on work reviewed to date, for the AFB, draft report, and final report. A sample Statement of Technical Review is included in Attachment 2.

## **6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)**

IEPR may be required for decision documents under certain circumstances. IEPR is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted. A risk-informed decision, as described in EC 1165-2-209, is made as to whether IEPR is appropriate. IEPR panels will consist of independent, recognized experts from outside of the USACE in the appropriate disciplines, representing a balance of areas of expertise suitable for the review being conducted. There are two types of IEPR:

- Type I IEPR. Type I IEPR reviews are managed outside the USACE and are conducted on project studies. Type I IEPR panels assess the adequacy and acceptability of the economic and environmental assumptions and projections, project evaluation data, economic analysis, environmental analyses, engineering analyses, formulation of alternative plans, methods for integrating risk and uncertainty, models used in the evaluation of environmental impacts of proposed projects, and biological opinions of the project study. Type I IEPR will cover the entire decision document or action and will address all underlying engineering, economics, and environmental work, not just one aspect of the study. For decision documents where a Type II IEPR (Safety Assurance Review) is anticipated during project implementation, safety assurance shall also be addressed during the Type I IEPR per EC 1165-2-209.
- Type II IEPR. Type II IEPR, or Safety Assurance Review (SAR), are managed outside the USACE and are conducted on design and construction activities for hurricane, storm, and flood risk management projects or other projects where existing and potential hazards pose a significant threat to human life. Type II IEPR panels will conduct reviews of the design and construction activities prior to initiation of physical construction and, until construction activities are completed, periodically thereafter on a regular schedule. The reviews shall consider the adequacy, appropriateness, and acceptability of the design and construction activities in assuring public health safety and welfare.



**a. Decision on IEPR.**

Due consideration was given to Paragraph 15 of EC 1165-2-209 as well as Appendix D of the same EC. The scope of the draft Feasibility Report and study are of limited nature and address relocation of an already authorized mooring basin. Project cost is currently estimated to be approximately \$5 million, which is far below the \$45,000,000 IEPR threshold. The draft report recommends an activity for which there is ample experience within the USACE and industry to treat the activity as being routine and there is no significant threat to human life and safety. We do not anticipate that other criteria, such as public safety concerns, significant controversy, a high level of complexity, significant economic, environmental and social effects to the nation, innovative solutions, or life safety issues will trigger the requirement for IEPR. Given the limited scope and potential impact, the document would not significantly benefit from IEPR. Therefore the District is requesting an exclusion from the Type I IEPR requirement.

**Mandatory IEPR Triggers**

EC 1165-2-209 identifies four mandatory triggers for Type I IEPRs:

- (a) Project is a significant threat to human life.
- (b) Where the estimated total cost of the project, including mitigation costs, is greater than \$45 million.
- (c) Where the Governor of an affected State requests a peer review by independent experts.
- (d) Where the Director of Civil Works (DCW) or the Chief of Engineers (CE) determines that the project study is controversial due to significant public dispute over either the size, nature, or effects of the project or the economic or environmental costs or benefits of the project.
  - (1) The project is not a significant threat to human life.
  - (2) The estimated total cost of the project is approximately \$5 million, far less than the \$45 million trigger.
  - (3) A peer review has not been requested by a Governor of an affected State.
  - (4) This project has not resulted in disputes over the size, nature, or effects of the project. Thus, the DCW and CE have not determined that the study is controversial.
  - (5) In summary, none of the mandatory IEPR triggers are met.

**Criteria for Eligibility for IEPR Exclusion**

According to EC 1165-2-209, a project study may be excluded from Type I IEPR in cases where none of the above mandatory triggers are met (which is the case for this project) and:

- (a) It does not include an EIS, and the DCW or the CE determines that the project:
  - Is not controversial; and
  - Has no more than negligible adverse impacts on scarce or unique tribal, cultural, or historic resources;
  - Has no substantial adverse impacts on fish and wildlife species and their habitat prior to the implementation of mitigation measures; and
  - Has, before implementation of mitigation measures, no more than a negligible adverse impact on a species listed as endangered or threatened species under the Endangered Species Act of 1973 or the critical habitat of such species designated under such Act;
- (1) The project is not controversial.
- (2) The project has no impact on scarce or unique tribal, cultural, or historic resources.

- (3) The project does not have substantial adverse impact on fish and wildlife species and their habitat. The project has minor impacts to patches of scattered sea grass within the mooring basin project area footprint along the edge of the GIWW channel
- (4) The project has no adverse impact on species listed as endangered or threatened or their critical habitat.

**OR**

(b) If the project study:

- Involves only the rehabilitation or replacement of existing hydropower turbines, lock structures, or flood control gates within the same footprint and for the same purpose as an existing water resources project; or
- Is for an activity for which there is ample experience within the USACE and industry to treat the activity as being routine; AND
- Has minimal life safety risk;

(1) NA

(2) This is a routine dredging project that does not involve the use of innovative materials or techniques. Current industry methodological standards will be implemented, with no precedent-setting or practice-changing methods, models, or conclusions. Risk is primarily associated with potential costs increases due to unexpected site conditions at the site for the new mooring basin and potential increases in rock quantities for the mitigation breakwater/marsh creation site at Mad Island. The construction of the mooring basin and breakwater are activities for which there is ample experience within the USACE and industry and can be treated as routine

(3) The project has minimal life safety risk.

**OR**

(c) If the project study does not include an EIS and is a project study pursued under the CAP Program.

(1) NA

**b. Products to Undergo Type I IEPR.** Not-Applicable (pending approval of IEPR Exclusion Request)

**c. Required Type I IEPR Panel Expertise.** Not-Applicable (pending approval of IEPR Exclusion Request)

**d. Documentation of Type I IEPR.** Not-Applicable (pending approval of IEPR Exclusion Request)

## **2. POLICY AND LEGAL COMPLIANCE REVIEW**

All decision documents will be reviewed throughout the study process for their compliance with law and policy. Guidance for policy and legal compliance reviews is addressed in Appendix H, ER 1105-2-100. These reviews culminate in determinations that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the home MSC Commander. DQC and ATR augment and complement the policy review processes by addressing compliance with pertinent published Army policies, particularly policies on analytical methods and the presentation of findings in decision

documents.

### 3. COST ENGINEERING DIRECTORY OF EXPERTISE (DX) REVIEW AND CERTIFICATION

All decision documents shall be coordinated with the Cost Engineering DX, located in the Walla Walla District. The DX will assist in determining the expertise needed on the ATR team and Type I IEPR team (if required) and in the development of the review charge(s). The DX will also provide the Cost Engineering DX certification. The RMO is responsible for coordination with the Cost Engineering DX. Given the small scope/scale nature of the project, coordination with Walla Walla resulted in a determination that the DX review of the Cost Engineering documents will occur concurrent with the ATR review.

### 4. MODEL CERTIFICATION AND APPROVAL

EC 1105-2-412 mandates the use of certified or approved models for all planning activities to ensure the models are technically and theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions. Planning models, for the purposes of the EC, are defined as any models and analytical tools that planners use to define water resources management problems and opportunities, to formulate potential alternatives to address the problems and take advantage of the opportunities, to evaluate potential effects of alternatives and to support decision making. The use of a certified/approved planning model does not constitute technical review of the planning product. The selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC, ATR, and IEPR (if required).

EC 1105-2-412 does not cover engineering models used in planning. The responsible use of well-known and proven USACE developed and commercial engineering software will continue and the professional practice of documenting the application of the software and modeling results will be followed. As part of the USACE Scientific and Engineering Technology (SET) Initiative, many engineering models have been identified as preferred or acceptable for use on Corps studies and these models should be used whenever appropriate. The selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC, ATR, and IEPR (if required).

**a. Planning Models.** The following planning models are anticipated to be used in the development of the decision document:

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Certification / Approval Status
HEP HSI	Habitat Evaluation Procedures (HEP) will be used to quantify, to the extent possible, potential outputs of proposed marsh creation. Quantification of benefits will be expressed in terms of Habitat Units (HUs). Habitat Suitability Index (HSI) models for juvenile spotted seatrout, brown shrimp, and great egret will be used. All U.S. Fish and Wildlife Service HSI models were approved by HQ for use (Policy Guidance on Certification of Ecosystem Output Models, 8/13/2008, Recommendation 3) and require no further approval or certification. The selection and application of these models require ATR review."	Certified
Study Specific	The draft Feasibility Report presents an economic analysis to	Level 3 Review

Economic Spreadsheet Model	support the relocation of the mooring basin and dropping the GIWW alternate / reroute across Corpus Christi Bay. The Inland Navigation Planning Center of Expertise (PCX) will conduct a Level 2 review of the model for the following reasons: 1) Review is for a routine and non-complex model that has a minor impact on project decision-making; and 2) The model platform is Microsoft Excel and the PCX has in-house expertise to review it appropriately.	of Regional / Local Model (Approval for Single Use is Pending)
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**b. Engineering Models.** The following engineering models are anticipated to be used in the development of the decision document:

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Approval Status
Mii - cost estimating models	Cost Engineering's model for developing cost.	Cost Engineering Approved Model
Crystal Ball Risk Based Analysis	Cost Engineering's model for determining risk in cost estimating.	Cost Engineering Approved Model

## 5. REVIEW SCHEDULES AND COSTS

### a. ATR Schedule and Cost.

#### Estimated schedule for ATR of the draft Feasibility Report and EA

ATR Review of Draft Reports	26 Jul - 15 Aug 2012.
ATR Certification of Draft Reports	27 Sep 2012
AFB	12 Oct 2012
Public Review of Draft Reports	TBD
ATR Certification of Final Reports	TBD

The cost is expected to be \$25K including the participation of the ATR Lead in milestone conferences and the Civil Works Review Board (CWRB) meeting to address the ATR process and any significant and/or unresolved ATR concerns.

**b. Type I IEPR Schedule and Cost.** Not-Applicable (pending approval of IEPR Exclusion Request)

**c. Model Certification/Approval Schedule and Cost.** As part of the Feasibility Report, the District is performing a Level 2 (Benefit Update) Economic Update to support the relocation of the previously authorized mooring basin. The estimated schedule and cost for this update is July, 2012 and \$25K.

## 6. PUBLIC PARTICIPATION

Public participation includes a public review and comment period for the Draft Feasibility Report and Environmental Assessment after the AFB. Significant public comments will be provided to the ATR reviewers prior to ATR certification. It is anticipated that the request for IEPR exclusion will be granted. Therefore the public will not be asked to nominate potential external peer reviewers. This can be reevaluated if the situation changes.

## 7. REVIEW PLAN APPROVAL AND UPDATES

The GIWW Port O'Connor to Corpus Christi, Texas, Section 216 Study Review Plan was approved by the Southwestern Division Commander in July 2009. The Review Plan is being resubmitted to incorporate use of the review plan template, new guidance references, and the reduction in project scope (no longer pursuing a reroute or alternate route for the GIWW at Corpus Christi Bay.

The Southwestern Division Commander is responsible for approving this Review Plan. The Commander's approval reflects vertical team input (involving district, MSC, RMO, and HQUSACE members) as to the appropriate scope and level of review for the decision document. Like the PMP, the Review Plan is a living document and may change as the study progresses. The home district is responsible for keeping the Review Plan up to date. Minor changes to the review plan since the last MSC Commander approval are documented in Attachment 3. Significant changes to the Review Plan (such as changes to the scope and/or level of review) should be re-approved by the MSC Commander following the process used for initially approving the plan. The latest version of the Review Plan, along with the Commanders' approval memorandum, should be posted on the Home District's webpage. The latest Review Plan should also be provided to the RMO and home MSC.

## 8. REVIEW PLAN POINTS OF CONTACT

Public questions and/or comments on this review plan can be directed to the following points of contact:

Robert Heinly	Chief, Planning Section	409-766-3992
Seth Jones	Planning Lead	409-766-3068
Pending	ATR Team Lead	

### Planning Center of Expertise for Inland Navigation

NAME	TITLE/ORG.	PHONE	EMAIL
Wesley Walker	Technical Director, PCXIN	304-399-6938	Wesley.W.Walker@usace.army.mil
Beth Cade	PCXIN Peer Review Account Manager	304-399-5848	Beth.A.Cade@usace.army.mil

**ATTACHMENT 1: TEAM ROSTERS**

**PDT Roster**

NAME	TITLE/ORG.	PHONE	EMAIL
Dennis Thomas	Project Manager CESWG-PM-J	409-766-3038	Dennis.M.Thomas@usace.army.mil
Seth Jones	Planning Lead CESWG-PE-PL	409-766-3068	seth.w.jones@usace.army.mil
Mark Garza	Environmental Lead CESWG-PE-PR	409-766-6348	Mark.Garza@usace.army.mil
Russ Wallace	Economist CESWL-PE	501-324-5033	Russ.G.Wallace@usace.army.mil
Martin Regner	Cost Engineer's CESWG-EC-PS	409-766-3923	Martin.B.Regner@usace.army.mil

**ATR Roster**

NAME	TITLE/ORG.	PHONE	EMAIL
Pending	ATR Manager		

**Vertical Team Roster**

NAME	TITLE/ORG.	PHONE	EMAIL
Sam Arrowood	District Planning Coordinator	469-487-7069	sam.a.arrowood@usace.army.mil
Evie Haberer	Regional Integration Team	202-761-0315	yvonne.l.haberer@usace.army.mil

**ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECISION DOCUMENTS**

**COMPLETION OF AGENCY TECHNICAL REVIEW**

The Agency Technical Review (ATR) has been completed for the <type of product> for <project name and location>. The ATR was conducted as defined in the project's Review Plan to comply with the requirements of EC 1165-2-209. During the ATR, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of: assumptions, methods, procedures, and material used in

analyses, alternatives evaluated, the appropriateness of data used and level obtained, and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing US Army Corps of Engineers policy. The ATR also assessed the District Quality Control (DQC) documentation and made the determination that the DQC activities employed appear to be appropriate and effective. All comments resulting from the ATR have been resolved and the comments have been closed in DrChecks<sup>sm</sup>.

*SIGNATURE*

Name  
ATR Team Leader  
Office Symbol/Company

\_\_\_\_\_  
Date

*SIGNATURE*

Name  
Project Manager  
Office Symbol

\_\_\_\_\_  
Date

*SIGNATURE*

Name  
Architect Engineer Project Manager<sup>1</sup>  
Company, location

\_\_\_\_\_  
Date

*SIGNATURE*

Name  
Review Management Office Representative  
Office Symbol

\_\_\_\_\_  
Date

#### **CERTIFICATION OF AGENCY TECHNICAL REVIEW**

Significant concerns and the explanation of the resolution are as follows: *Describe the major technical concerns and their resolution.*

As noted above, all concerns resulting from the ATR of the project have been fully resolved.

*SIGNATURE*

Name  
Chief, Engineering Division  
Office Symbol

\_\_\_\_\_  
Date

*SIGNATURE*

Name  
Chief, Planning Division  
Office Symbol

\_\_\_\_\_  
Date

<sup>1</sup> Only needed if some portion of the ATR was contracted

**ATTACHMENT 3: REVIEW PLAN REVISIONS**

<b>Revision Date</b>	<b>Description of Change</b>	<b>Page / Paragraph Number</b>
March 2009	Approved Review Plan	
May 2012	Revision of Approved Review Plan to incorporate new review plan template, changes in guidance references, dropping the Corpus Christi Bay GIWW alternate or reroute proposal.	throughout document



**ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS**

<b>Term</b>	<b>Definition</b>	<b>Term</b>	<b>Definition</b>
AFB	Alternative Formulation Briefing	NED	National Economic Development
ASA(CW)	Assistant Secretary of the Army for Civil Works	NER	National Ecosystem Restoration
ATR	Agency Technical Review	NEPA	National Environmental Policy Act
CSDR	Coastal Storm Damage Reduction	O&M	Operation and maintenance
DPR	Detailed Project Report	OMB	Office and Management and Budget
DQC	District Quality Control/Quality Assurance	OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
DX	Directory of Expertise	OEO	Outside Eligible Organization
EA	Environmental Assessment	OSE	Other Social Effects
EC	Engineer Circular	PCX	Planning Center of Expertise
EIS	Environmental Impact Statement	PDT	Project Delivery Team
EO	Executive Order	PAC	Post Authorization Change
ER	Ecosystem Restoration	PMP	Project Management Plan
FDR	Flood Damage Reduction	PL	Public Law
FEMA	Federal Emergency Management Agency	QMP	Quality Management Plan
FRM	Flood Risk Management	QA	Quality Assurance
FSM	Feasibility Scoping Meeting	QC	Quality Control
GRR	General Reevaluation Report	RED	Regional Economic Development
Home District/MSD	The District or MSD responsible for the preparation of the decision document	RMC	Risk Management Center
HQUSACE	Headquarters, U.S. Army Corps of Engineers	RMO	Review Management Organization
IEPR	Independent External Peer Review	RTS	Regional Technical Specialist
ITR	Independent Technical Review	SAR	Safety Assurance Review
LRR	Limited Reevaluation Report	USACE	U.S. Army Corps of Engineers
MSC	Major Subordinate Command	WRDA	Water Resources Development Act